10/593,322 11/08/2009 STN: SEARCH

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(CS) field
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NEWS 5 AUG 24 CA/Caplus enhanced with legal status information for U.S. patents

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NEWS $\,$ 7 SEP 11 WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus

NEWS 8 OCT 21 Derwent World Patents Index Coverage of Indian and Taiwanese Content Expanded

NEWS 9 OCT 21 Derwent World Patents Index enhanced with human translated claims for Chinese Applications and Utility Models

NEWS 10 OCT 27 Free display of legal status information in CA/CAplus, USPATFULL, and USPAT2 in the month of November.

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Page 111/08/200908/11/2009 <Page 104:12>

STN: SEARCH 10/593,322 11/08/2009

FILE 'HOME' ENTERED AT 04:05:33 ON 08 NOV 2009

=> FILE CASREACT

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FILE CONTENT: 1840 - 8 Nov 2009 VOL 151 ISS 20

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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chain nodes:
1 2 3 4 5 6 7 8 9 10 11 12 13 16 17

chain bonds : 1-2 1-6 1-7 1-8 2-3 2-4 2-5 9-10 10-11 10-12 10-13 16-17

exact/norm bonds :

1-2 1-6 1-7 1-8 2-3 2-4 2-5 9-10 10-11 10-12 10-13 16-17

G1:H, X, Cy, Ak

G2:C1,F

G3:Br,I

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 13:CLASS 16:CLASS 17:CLASS

fragments assigned product role:

containing 9

fragments assigned reactant/reagent role:

containing 1

containing 1

containing 16

STN: SEARCH 10/593,322 11/08/2009

L1 STRUCTURE UPLOADED

=> S L1 FULL

FULL SEARCH INITIATED 04:06:30 FILE 'CASREACT'

SCREENING

SCREENING COMPLETE - 80635 REACTIONS TO VERIFY FROM 6605 DOCUMENTS

93.0% DONE 74975 VERIFIED 10420 HIT RXNS

1160 DOCS

100.0% DONE 80635 VERIFIED 10491 HIT RXNS

1176 DOCS

SEARCH TIME: 00.00.41

1176 SEA SSS FUL L1 (10491 REACTIONS)

=> S L2 AND ALKALI METAL

14830 ALKALI 60778 METAL

7876 ALKALI METAL

(ALKALI(W)METAL) 5 L2 AND ALKALI METAL

=> S L2 AND ALKALINE EARTH METAL

2778 ALKALINE 6774 EARTH 60778 METAL

170 ALKALINE EARTH METAL

(ALKALINE (W) EARTH (W) METAL) 0 L2 AND ALKALINE EARTH METAL

=> D L3 IBIB ABS CRD 1-5

T.4

L3 ANSWER 1 OF 5 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 143:325973 CASREACT

TITLE: Method for producing fluorine-containing halide INVENTOR(S): Suqiyama, Akinari; Ichihara, Kazuyoshi; Shinoki,

Noriyuki; Mantani, Toshiya; Kondou, Masahiro PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE:

PCT Int. Appl., 31 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE WO 2005090270 A1 20050929 WO 2005-JP4302 20050311 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20070185355 A1 20070809 PRIORITY APPLN. INFO.:

US 2006-593322 20060918 JP 2004-85295 20040323 JP 2004-201299 20040708 WO 2005-JP4302 20050311

MARPAT 143:325973

OTHER SOURCE(S): A method for producing a fluorine-containing halide, e.g. formula R2C(R1)(R3)X (R1, R2, R3 = H, halo, hydrocarbyl optionally containing 1 or ≥2 of F, O, N, and S atoms; provided that at least one of R1-R3 is halo; X = Br, iodo; when all of R1-R3 is not F, at least one of R1-R3 is F-containing hydrocarbyl), is characterized in that a fluorine-containing sulfonyl halide or a fluorine-containing disulfonyl chloride, e.g. formula R2C(R1)(R3)S02Z (R1-R3 = same as above; Z = C1, F; when Z is F, R1 and R3 are F and R2 =CF2:CFOCF2), is reacted with a metal halide, a metal or the like in a solvent or without a solvent. With this method, a fluorine-containing bromide, a fluorine-containing iodide or a fluorine-containing chloride can be easily produced in a com. advantageous manner at low cost and high yield. Thus, 20.0 q CF2:CF0CF2CF2S02Cl was slowly added dropwise to a mixture of 30.4 g NaI in 30 g DMSO at 23.0° with stirring during which the temperature rose to maximum 85° and the color of the reaction solution turned reddish brown. The reaction mixture was further stirred for 1.5 h to give ≥99.9% CF2:CF0CF2CF2I, perfluoro(2-iodoethyl vinyl ether), according to 19F NMR.

RX(1) OF 5

CON: STAGE(1) 23 deg C; 23 deg C -> 85 deg C; 1.5 hours, 85 deg C

RX(2) OF 5

$$\begin{array}{c} CF_2 \\ \parallel \\ F-C-O-CF_2-CF_2-S-C1 \end{array} \xrightarrow{NaBr, \ DMSO} \begin{array}{c} CF_2 \\ \parallel \\ F-C-O-CF_2-CF_2-Br \end{array}$$

CON: STAGE(1) 23 deg C; 23 deg C -> 85 deg C; 1.5 hours, 85 deg C

RX(3) OF 5

$$\begin{array}{c} \begin{array}{c} \bullet \\ \bullet \\ \text{Cl-S- (CF_2)_4-S-Cl} \end{array} & \begin{array}{c} \bullet \\ \text{NaBr, DMSO} \end{array} & \text{Br- (CF_2)_4-Br} \\ \bullet \\ \bullet \end{array}$$

CON: STAGE(1) 21 deg C; 21 deg C -> 85 deg C; 1.5 hours, 85 deg C

RX(5) OF 5

$$\begin{array}{c} \overset{CF_2}{\underset{F-C-O-CF_2-CF_2-S-F}{\text{F}}} & \overset{O}{\underset{NaI, DMSO}{\text{MSO}}} & \overset{CF_2}{\underset{F-C-O-CF_2-CF_2-I}{\text{F}}} \\ \end{array}$$

CON: STAGE(1) room temperature; 2 hours, 75 - 110 deg C

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 5 CASREACT COPYRIGHT 2009 ACS on SIN

ACCESSION NUMBER: 137:369764 CASREACT

TITLE: Multi-step process for the production of (1R,5S)-bicyclo[3.2.0]heptan-3-one from cis-1,2,3,6-tetrahydrophthalic anhydride

INVENTOR(S): Blakemore, David Clive, Bryans, Justin Stephen Warner-Lambert Company, USA PATENT ASSIGNEE(S):

PCT Int. Appl., 23 pp. SOURCE: CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2002090306 A1 20021114 WO 2002-IB1402 20020418 APPLICATION NO. DATE W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG GB 2375108 A 20021106 GB 2001-10884 20010504 AU 2002253476 A1 20021118 AU 2002-253476 20020418 GB 2001-10884 20010504 WO 2002-IB1402 20020418 PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 137:369764 GI

AB (1R,5S)-bicyclo[3.2.0]heptan-3-one (I) is prepared in a multi-step process via the reduction of cis-1,2,3,6-tetrahydrophthalic anhydride to form the corresponding diol which is esterified with an alkyl- or arylsulfonyl halide to form the corresponding disulfonate diester (II, R = alkyl, aryl), the disulfonate diester is iodinated or brominated with a Group IA iodide or bromide to form the diodide or dibromide (III, X = I, Br) which is then decarboxylatively cyclyzed with an alkyl lithium compound to give the bicyclic alkene (IV) which is subjected to ring-opening oxidation to give the dicarboxylic acid (V) which is esterified with an alkanol R1OH (R1 = alkyl) to give the diester (VI) the diester is cyclized with a strong base to form the bicyclic B-keto ester (VII) which is converted into the title compound by thermal decarboxylation.

RX(10) OF 16 - 2 STEPS

NOTE: 1) alternative prepn. gave lower yields

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RX(13) OF 16 - 3 STEPS

NOTE: 2) alternative prepn. gave lower yields

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 5 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 137:201095 CASREACT

TITLE: Industrial preparation of cyclopropylmethyl iodide Shimanuki, Kazuhiro; Hanzawa, Sadashi; Shimazaki, INVENTOR(S):

Kazuhiro PATENT ASSIGNEE(S):

Nippon Soda Co., Ltd., Japan; Koriyama Kasei Co., Ltd. Jpn. Kokai Tokkyo Koho, 3 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE -----JP 2002255867 A 20020911 JP 2001-51629 20010227 PRIORITY APPLN. INFO.: JP 2001-51629 20010227

The compound is prepared by mixing cyclopropylmethanol with organic sulfonyl halides in aprotic solvents, adding tertiary amines, and reacting the resulting cyclopropylmethyl organic sulfonates with alkali metal iodides and/or quaternary ammonium iodides in aprotic polar solvents. Methanesulfonvl chloride was added to acetone solution of cyclopropanemethanol, mixed with Et3N at 10-25° for 1.5 h, and reacted with NaI at 50° for 6 h to give 90.4% cyclopropylmethyl iodide.

RX(1) OF 1

L3 ANSWER 4 OF 5 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 133:207585 CASREACT

TITLE: Preparation of cyclopropylmethyl iodide

INVENTOR(S): Kasahara, Isamu; Sugawara, Mutsumi
PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan

10/593,322 11/08/2009 STN: SEARCH

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE PATENT NO. KIND DAIL

JP 2000256230 A 20000919 JP 1999-54224 19990302

JP 1999-54224 19990302

JP 1999-54224 19990302

JP 1999-54224 19990302

PRIORITY APPLN. INFO.: AB Title compds. are prepared by iodination of cyclopropylmethyl sulfonates with alkali metal iodides or quaternary ammonium

iodides in aprotic polar solvents. Thus, cyclopropanemethanol was treated with methanesulfonyl chloride in N-methylpyrrolidone in the presence of Et3N to give, after treatment with NaI, 80.5% cyclopropylmethyl iodide.

RX(1) OF 1

L3 ANSWER 5 OF 5 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 116:59078 CASREACT

TITLE: Preparation of

[[(heterocyclylimino)methyl]phenyl]carbapenems and analogs as antibiotics and antibacterial agents

INVENTOR(S): DiNinno, Frank P.; Thorsett, Eugene D.; Salzmann, Thomas N.

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: U.S., 18 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE US 5037820 A 19910806 US 1990-546279 19900629 CA 2045847 A1 19911230 CA 1991-2045847 19910627 EP 465126 A2 19920108 EP 1991-305822 19910627 EP 465126 A3 19920311 R: CH, DE, FR, GB, IT, LI, NL JP 06220057 A 19940809 JP 07008868 B 19950201 JP 1991-256066 19910629 PRIORITY APPLN. INFO.: US 1990-546279 19900629 US 1990-594888 19901009 OTHER SOURCE(S): MARPAT 116:59078

AB The title compds. [I; A = (CH2)mQ(CH2)n; M = H, alkali The title compose, if, $n = (\text{One}/\text{im}\chi(\text{One}/\text{In}), n = n, \text{ alkali})$ metal, protective group, Q = O(2C, (alky)) junino; Q1 = (oxo)azolyl, -azinyl, etc.; R = H, Me; R1, R2 = H, Me, Et, CH2OH, MeCH(OH), etc.; Z = (un)substituted 1,3 - or 1,4 - phenylenediyl; m = 1, 2; n = 0 - 2] were prepared as antibiotics and antibacterial agents (no data). Thus, allyl (5R,6S)-2-(4-iodomethylphenyl)-6-[(1R)-(allyloxycarbonyloxy)ethyl]carbapen-2-em-3-carboxylate (preparation given) was condensed with 3-amino-2-piperidone to give, after deprotection, title compound II.

RX(14) OF 30 - 2 STEPS

- 1. MeSO2Cl, Et3N, CH2C12 2. NaI

10/593,322 11/08/2009 STN: SEARCH

RX(14) OF 30 - 2 STEPS

REFERENCE COUNT: THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ENTRY | TOTAL |
| CA SUBSCRIBER PRICE | -3.90 | -3.90 |

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